

	sq. km	sq. mi	FIA Plots
Area of Region	54,743	21,136	22

Species Information

The columns below provide brief summaries of the species associated with the region and described in the table on the next pages. Definitions are provided in the Excel file for this region.

Genus	Species	Abundance		Model		Potential Change in Habitat Suitability		Capability to Cope or Persist		Migration Potential		
				Reliability	Adaptability	Scenario RCP45	Scenario RCP85	Scenario RCP45	Scenario RCP85	SHIFT RCP45	SHIFT RCP85	
Ash	1			High	2	8	Increase	1	1	Very Good	0	0
Hickory	0			Medium	7	12	No Change	5	7	Good	1	1
Maple	2	Abundant	0	Low	11	1	Decrease	6	4	Fair	3	3
Oak	1	Common	0	FIA	3		New	4	4	Poor	4	6
Pine	1	Rare	15				Unknown	7	7	Very Poor	3	1
Other	10	Absent	8							FIA Only	1	1
	15		23		23	21		23	23	Unknown	4	4
											16	16

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099
Annual Average	CCSM45	40.8	42.2	44.1	44.6
	CCSM85	40.8	42.7	44.9	47.5
	GFDL45	40.8	45.3	44.2	45.3
	GFDL85	40.8	42.9	45.2	48.7
	HAD45	40.8	43.2	46.1	47.3
HAD85	40.8	43.6	47.4	50.9	
Growing Season (May—Sep)	CCSM45	56.4	58.0	59.9	60.4
	CCSM85	56.4	58.6	60.8	63.8
	GFDL45	56.4	62.1	60.7	62.1
	GFDL85	56.4	58.9	61.6	65.8
	HAD45	56.4	58.5	60.7	62.2
HAD85	56.4	58.6	61.8	65.4	
Coldest Month (Average)	CCSM45	16.5	17.9	19.3	19.6
	CCSM85	16.5	17.3	18.8	20.5
	GFDL45	16.5	19.1	19.8	20.1
	GFDL85	16.5	19.0	20.2	22.0
	HAD45	16.5	18.7	21.5	21.1
HAD85	16.5	20.8	24.5	26.2	
Warmest Month (Average)	CCSM45	61.8	63.9	65.0	65.6
	CCSM85	61.8	64.7	66.2	68.2
	GFDL45	61.8	64.5	65.6	66.5
	GFDL85	61.8	64.8	66.1	68.8
	HAD45	61.8	64.2	65.4	66.5
HAD85	61.8	64.4	66.3	68.7	

Precipitation (in)

	Scenario	2009	2039	2069	2099
Annual Total	CCSM45	15.9	16.1	16.0	15.5
	CCSM85	15.9	15.8	15.7	16.1
	GFDL45	15.9	18.3	20.0	18.9
	GFDL85	15.9	18.4	20.5	20.0
	HAD45	15.9	17.3	16.6	17.2
HAD85	15.9	17.0	17.2	18.7	
Growing Season (May—Sep)	CCSM45	10.6	10.1	10.0	9.5
	CCSM85	10.6	9.8	9.8	9.3
	GFDL45	10.6	12.3	13.4	12.2
	GFDL85	10.6	12.2	13.2	12.4
	HAD45	10.6	10.7	10.1	9.9
HAD85	10.6	10.5	9.9	9.3	

NOTE: For the six climate variables, four 30-year periods are used to indicate six potential future trajectories. The period ending in 2009 is based on modeled observations from the PRISM Climate Group and the three future periods were obtained from the NASA NEX-DCP30 dataset. Future climate projections from three models under two emission scenarios show estimates of each climate variable within the region. The three models are CCSM4, GFDL CM3, and HadGEM2-ES and the emission scenarios are the 4.5 and 8.5 RCP. The average value for the region is reported, even though locations within the region may vary substantially based on latitude, elevation, land-use, or other factors.

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Current and Potential Future Habitat, Capability, and Migration

Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
Siberian elm	Ulmus pumila	NDH	FIA	8	28.0	55.7	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	1
green ash	Fraxinus pennsylvanica	WSH	Low	9.5	24.6	25.0	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	2
boxelder	Acer negundo	WSH	Low	4.6	17.6	20.7	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +	Infill +	2	3
bur oak	Quercus macrocarpa	NDH	Medium	1.9	14.5	22.0	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	4
American elm	Ulmus americana	WDH	Medium	4	11.4	33.0	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	5
eastern cottonwood	Populus deltoides	NSH	Low	1.1	7.6	38.4	No change	No change	Medium	Rare	Poor	Poor			2	6
red mulberry	Morus rubra	NSL	Low	0	4.6	2.6	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	7
honeylocust	Gleditsia triacanthos	NSH	Low	1.5	3.1	34.0	No change	No change	High	Rare	Fair	Fair			2	8
hackberry	Celtis occidentalis	WDH	Medium	1.4	2.8	30.2	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	9
Scots pine	Pinus sylvestris	NSH	FIA	0.7	1.6	34.5	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	10
eastern redcedar	Juniperus virginiana	WDH	Medium	1.5	0.7	8.0	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	11
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	0.7	0.5	11.7	Sm. dec.	Lg. dec.	High	Rare	Poor	Poor			0	12
chokecherry	Prunus virginiana	NSLX	FIA	1.5	0.5	5.4	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	13
American basswood	Tilia americana	WSL	Medium	0.2	0.4	2.6	No change	No change	Medium	Rare	Poor	Poor			2	14
sugar maple	Acer saccharum	WDH	High	0.7	0.4	8.4	Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0	15
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	16
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	17
yellow buckeye	Aesculus flava	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	18
serviceberry	Amelanchier spp.	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	19
flowering dogwood	Cornus florida	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	20
black walnut	Juglans nigra	WDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	21
northern red oak	Quercus rubra	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	22
slippery elm	Ulmus rubra	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	23